(54) Title: HIERARCHICAL ROUTING IN AD-HOC NETWORKS
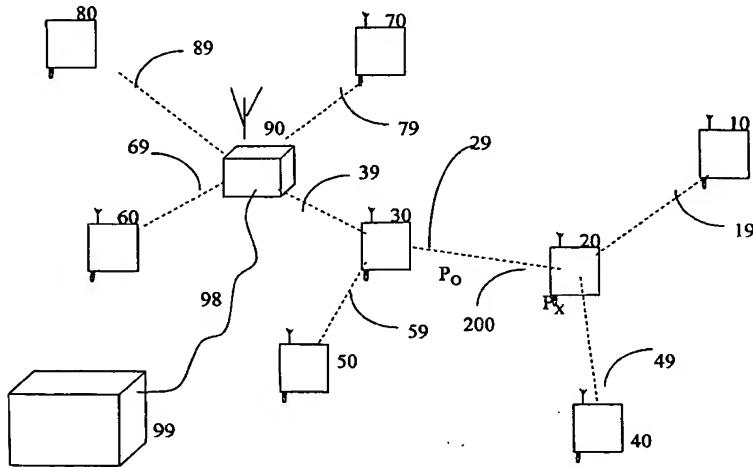
(57) **Abstract:** A number of data collection devices (10, 20, 30, 40, 50, 60, 70, 80) are free to move relative to each other through their environment, collecting data from their environment. They form an ad hoc wireless network (19, 29, 39, 49, etc) in which data collected by a device (20) (either by its own sensors (23), or relayed from another device (10)) is transmitted to a destination (90) either directly or by means of one or more other devices (30). The destination (90) collects data collected by the mobile terminals (10, 20, 30 etc) for subsequent processing. The wireless links (19, 29, 39 etc) between them have to re-arranged in order to provide the optimum network. Each device (20, 30) defines a scalar status value determined by factors including remaining battery life and amount of data in the buffer. The devices exchange information about their status values. Each device will only forward payload data to other devices having lower status values than its own.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.